AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claim in the application.

1. – 26. (cancelled)

27. (currently amended) A method for programming, comprising:

performing a coarse programming phase for a non-volatile storage element until said non-volatile storage element reaches a first condition; and

performing a fine programming phase for said non-volatile storage element by metering charge to said non-volatile storage element, said metering charge to said non-volatile storage element comprises charging a charge storage element, applying a program signal to said non-volatile storage element, and discharging said charge storage element through said non-volatile storage element.

28. (original) A method according to claim 27, wherein:

said fine programming phase is commenced for said non-volatile storage element subsequent to said coarse programming phase being completed for said non-volatile storage element.

29. (cancelled)

30. (currently amended) A method according to claim [[29]] 27, wherein: said metering charge to said non-volatile storage element comprises:

said charging a charge storage element includes connecting a capacitor to a power supply and charging said capacitor.[[;]]

~~disconnecting said power supply from said capacitor after charging said capacitor;~~

~~applying a program signal to said non-volatile storage element; and~~

~~discharging said charge storage element through said non-volatile storage element.~~

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31.   (currently amended)   A method according to claim [[29]] 27, wherein said ~~metering charge to said non-volatile storage element comprises:~~ charging said charge storage element, applying said program signal, and discharging said charge storage element comprise:

pre-charging a bit line associated with said non-volatile storage element;

causing said bit line to be in a floating state after said pre-charging;

applying a common program signal to said non-volatile storage element; and

discharging said charge storage element through said non-volatile storage element.

32.   (currently amended)   A method for programming, comprising: ~~A method according to claim 27, wherein~~

performing a coarse programming phase for a non-volatile storage element until said non-volatile storage element reaches a first condition; and

performing a fine programming phase for said non-volatile storage element by metering charge to said non-volatile storage element, said metering charge to said non-volatile storage element comprises[[:]] switching capacitors in a charge metering system.

33.   (original) A method according to claim 27, wherein said metering charge to said non-volatile storage element comprises:

switching power supplies in a charge metering system.

34.   (currently amended)   A method for programming, comprising: ~~A method according to claim 27, wherein~~

performing a coarse programming phase for a non-volatile storage element until said non-volatile storage element reaches a first condition; and

performing a fine programming phase for said non-volatile storage element by metering charge to said non-volatile storage element, said metering charge to said non-volatile storage element comprises[[:]] switching a variable power supply in a charge metering system.

35.   (original) A method according to claim 27, wherein:

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said coarse programming mode does not include metering charge to said non-volatile storage element.

36.   (original) A method according to claim 27, wherein:
said a non-volatile storage element is a multi-state flash memory device.

37.   (currently amended) A method according to claim 27, wherein: said metering charge to said non-volatile storage element comprises:
charging a charge-storage element;
applying a common program signal to said non-volatile storage element, said common program signal is applied to multiple non-volatile storage elements along a common word line; and
discharging said charge storage element through said non-volatile storage element.

38.   (original) A method for programming, comprising:
performing a coarse programming process on a non-volatile storage element;
determining that said non-volatile storage element should switch to a fine programming process; and
performing said fine programming process in response to determining that said non-volatile storage element should switch to said fine programming process, said fine programming process comprises:

pre-charging a control line for said non-volatile storage element, and

discharging said control line via said non-volatile storage element in order to program said non-volatile storage element.

39.   (original) A method according to claim 38, wherein:
said step of pre-charging a control line includes charging a capacitor.

40.   (original) A method according to claim 38, wherein:

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said step of pre-charging a control line includes connecting a charge storage device to a power supply, said charge storage device is connected to said non-volatile storage element; and

said step of discharging said control line includes disconnecting said power supply from said charge storage device.

41. (original) A method according to claim 38, wherein:

said control line is a bit line for multiple non-volatile storage elements.

42. (original) A method according to claim 38, wherein:

said control line is pre-charged using a variable power supply; and

said fine programming process comprises changing said variable power supply to provide a signal appropriate for said fine programming process.

43. (original) A method according to claim 38, wherein:

said control line is pre-charged during said coarse programming process using a first power supply;

said control line is pre-charged during said fine programming process using a second power supply; and

said fine programming process includes switching from said first power supply to said second power supply.

44. (original) A method according to claim 38, wherein:

said control line is pre-charged during said fine programming process using a first charge storage device;

said control line is pre-charged when not in said fine programming process using a second charge storage device; and

said fine programming process includes switching from said second charge storage device to said first charge storage device.

45. (original) A method according to claim 38, wherein:

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said non-volatile storage element is a multi-state flash memory device.

46.   (new) A method for programming, comprising:

performing a coarse programming phase for a non-volatile storage element until said non-volatile storage element reaches a first condition; and

performing a fine programming phase for said non-volatile storage element by metering charge to said non-volatile storage element, said metering charge to said non-volatile storage element comprises switching charge storage devices.